Linked Data initiatives at OCLC

DR. AXEL KASCHTE
STRATEGY DIRECTOR, OCLC EMEA
Status of Linked Data initiatives within OCLC and where we hope to be in the near future ...
OCLC Linked Data Research

There are quite many original OCLC research papers.

“We believe that linked data will become the de-facto standard for describing things on the internet, including bibliographic objects.”

#OCLCLibraryFutures
Wait, but why?
Why Linked Data?

Better outcomes

New functionality

Cleaner data

- A better user experience
- Greater web visibility
- Connect library resources with other domains
- More ways for discovery of library resources
- Replicate existing library functions more efficiently
- Improve data integration across domains and regions
- Improve internal data management & quality

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Clarify context vs. inventory control
Problem statement

The library community’s foundational bibliographic standard is no longer sufficient to take advantage of the tremendous opportunities offered by the web.
Areas of inquiry

• Searching across a wide pool of described ‘things’ (entities)
• Improving display of connections and context
• Improving connectivity of inbound data

Building a ”context layer”
Aspirations: IFLA - LRM

work  place

person   event

organization  concept
What have we done?
Linked Data of OCLC

- Works: 5 billion triples
- Manifestations: 15 billion triples
- Persons: 500 million triples
- FAST: 23 million triples
- VIAF: 2 billion triples
- ISNI: 10-50 million triples
Metadata refinery prototype
Transforming records to entities

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IIIF prototype / separation of related concerns

Wikipedia

Wikidata

Wikimedia Commons

**COMMENTARY**

Narrative commentary

**CONTEXT**

Context through verifiable statements, entity properties and relationships

**CONTENT**

Digital content, rights, and technical metadata

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WikiData Pilot Project “Passage”

Phase I Partners (Dec ’17 - Apr ‘18)
- Cornell University
- University of California, Davis

Phase II Partners (May ‘18 – Sep ‘18)
- American University
- Brigham Young University
- Cleveland Public Library
- Harvard University
- Michigan State University
- National Library of Medicine
- North Carolina State University
- Northwestern University
- Princeton University
- Smithsonian Library
- Temple University
- University of Minnesota
- University of New Hampshire
- Yale University

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What was “Passage” about

- Develop an **Entity Ecosystem** that facilitates:
  - Creation and editing of new entities
  - Connecting entities to the Web
- Build a **community of users** who can:
  - Create/Curate data in the ecosystem
  - Imagine/propose workflow uses
  - Communicate easily with each other and with OCLC to iteratively improve the prototype
- Provide services to:
  - Reconcile data
  - Explore the data

It was being built using open source technologies such as MediaWiki, WikiBase, and OpenRefine.
Results of “Passage”

• **Final Report**  
  *Aug 2019*

• The simple prototype described at the beginning matured over time to a robust set of third-party tools based on WikiBase to manage over a million entities.

• Goals achieved:
  – Collaboration
  – Reconciliation
  – Editing
Create/Curate data

Jane Austen

English novelist
Austen, Jane

<table>
<thead>
<tr>
<th>Language</th>
<th>Label</th>
<th>Description</th>
<th>Also known as</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>Jane Austen</td>
<td>English novelist</td>
<td>Austen, Jane</td>
</tr>
<tr>
<td>German</td>
<td>Jane Austen</td>
<td>britische Schriftstellerin</td>
<td></td>
</tr>
<tr>
<td>French</td>
<td>Jane Austen</td>
<td>romancière anglaise</td>
<td>Austen, Jane</td>
</tr>
<tr>
<td>Spanish</td>
<td>Jane Austen</td>
<td>novelista británica</td>
<td></td>
</tr>
</tbody>
</table>

Statements

place of death
Winchester
0 references

instance of
person
0 references
Create/Curate data

death date

18 July 1817 Gregorian

2 references
- stated in: Concise Literary Encyclopedia
- sourcing circumstances: unspecified calendar, assumed gregorian

- stated in: data.bnf.fr
- retrieved: 2 February 2018

24 July 1877 Gregorian

1 reference
- stated in: Q1021841
- sourcing circumstances: misprint
Reconcile data

• Searching for vocabulary and entities as you type
Explore the data

Sein und Zeit (German)
Being and Time

About
Being and Time (German: Sein und Zeit) is a 1927 book by the German philosopher Martin Heidegger, in which Heidegger seeks to analyse the concept of Being. This has fundamental importance for philosophy, he thought, because since the time of the Ancient Greeks, philosophy has avoided this question, turning instead to the analysis of particular beings. Heidegger seeks a more fundamental ontology through understanding being itself. He approached this through seeking understanding of beings to whom the question of being is important, i.e. Dasein, or the human being in the abstract. Although written quickly, and though Heidegger did not complete the project outlined in the introduction, Being and Time remains his most important work. Being and Time has profoundly influenced 20th-century philosophy, particularly existentialism, hermeneutics, deconstruction, and the enactivist approach to cognition. The book is dedicated to Edmund Husserl ‘in friendship and admiration’.

Philosophy book by Martin Heidegger
Also known as: Sein und Zeit

Statements
Translations
Identifiers

#OCLCLibraryFutures
Explore the data

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Translations

- Korean translation of Heidegger’s Sein und Zeit (trans: Myeong-o Chong: Sun-chol Chong)
- English translation of Heidegger’s Sein und Zeit (translators: Macquarrie and Robinson)
- Italian translation of Heidegger’s Sein und Zeit (translator: Marini & Chioldi)
- Modern Greek translation of Heidegger’s Sein und Zeit (translator: Tzavaras)
- Persian translation of Heidegger’s Sein und Zeit (translator: Gamadi)
- Danish translation of Heidegger’s Sein und Zeit (translator: Skovgaard)
- Spanish translation of Heidegger’s Sein und Zeit (translator Jose Gaos)
- Greek translation of Heidegger’s Sein und Zeit (translated by Vegenas)
- Japanese translation of Heidegger’s Sein und Zeit (translator: Tasuku Hara)
- Hungarian translation of Heidegger’s Sein und Zeit (translator: Vajda)

Identifiers

#OCLCLibraryFutures
Explore the data

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*About*

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*Representative OCN*

- [http://www.worldcat.org/oclc/180629775](http://www.worldcat.org/oclc/180629775)
- [http://www.worldcat.org/oclc/4962810](http://www.worldcat.org/oclc/4962810)

*Worldcat work ID (may be unstable)*

- [http://worldcat.org/entity/work/id/3698820883](http://worldcat.org/entity/work/id/3698820883)
- [http://worldcat.org/entity/work/id/2909502532](http://worldcat.org/entity/work/id/2909502532)
- [http://worldcat.org/entity/work/id/2908578643](http://worldcat.org/entity/work/id/2908578643)
WorldCat with Entity Backbone

Controlled Catalog

WorldCat

Explorer Services

Exchange Services

← → MARC21 (w/ links)
← → BibFrame
← → Schema.org
← → other…
